CHAPTER Env-A 3300 MUNICIPAL WASTE COMBUSTION

Statutory Authority: RSA 125-C:4

PART Env-A 3301 PURPOSE AND SCOPE

Env-A 3301.01 Purpose. The purpose of this chapter is to establish operating and performance standards for existing municipal waste combustion (MWC) units with the capacity to combust greater than 35 tons per day of municipal solid waste. This is required of the department in order to comply with federal regulations promulgated pursuant to §111(d) and §129 of the clean air act.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3301.02 Scope. This chapter shall apply to all existing large and small MWC units, as those terms are defined in Env-A 3302.02, and their owners or operators.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3302 REFERENCES AND DEFINITIONS

Env-A 3302.01 References. For the purpose of this chapter, unless otherwise specified, all references to 40 CFR 60 shall be to 40 CFR 60 as amended or revised on July 1, 2007.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3302.02 Definitions. For the purposes of this chapter:

(a) The definitions in 40 CFR §60.51b shall apply to existing large MWC units;

(b) The definitions in 40 CFR §60.1940 shall apply to existing small MWC units;

(c) "Existing large municipal waste combustion unit" or "large MWC unit" means a municipal waste combustor with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994;

(d) "Existing small municipal waste combustion unit" or "small MWC unit" means a municipal waste combustion unit with a combustion capacity of at least 35 tons per day of municipal solid waste but no more than 250 tons per day of municipal solid waste for which construction was commenced on or before August 30, 1999;

(e) "Final control plan" means a written description of the air pollution control devices and process changes that will be used to comply with the emission limits and other requirements of this chapter; and

(f) "You" means, when used in subpart BBBB of 40 CFR 60, the owner or operator of a small MWC unit.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3303 EMISSION LIMITS

Env-A 3303.01 Emission Limits for Large MWC Units.

(a) The emission limits for carbon monoxide for large MWC units shall be as specified in Table 3 of 40 CFR §60.34b(a).

(b) The emission limits for nitrogen oxides for large MWC units shall be as specified in Table 3303-1, below:

Table 3303-1 Nitrogen Oxides (NOx) Limits for Large MWC Units

Municipal Waste Combustor Technology	**NOx Emission Limit (parts per million by volume, corrected to 7 percent oxygen, dry basis)**	**Averaging Time (EPA Reference Method 19, §4.1)**
Mass burn waterwall	205	Daily arithmetic average (24 hours)
Mass burn rotary waterwall	250	Daily arithmetic average (24 hours)
Refuse-derived fuel combustor	250	Daily arithmetic average (24 hours)
Fluidized bed combustor	180	Daily arithmetic average (24 hours)
Mass burn refractory combustor	No limit	N/A

(c) The emissions limits for large MWC units shall be as specified in Table 3303-2 for the air pollutants or parameters listed and all MWC technologies:

Table 3303-2 Emissions Limits for Large MWC Units

Pollutant or Parameter	**Emission Limit**	**Averaging Time**
Particulate matter	25 milligrams (mg)/dry standard cubic meter (dscm), corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Opacity	10 percent (6-minute average)	30 6-minute averages
Cadmium	0.035 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Lead	0.40 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Mercury	0.028 mg/dscm, corrected to 7 percent oxygen**,** or 85 % control efficiency	3-run average (run duration specified in test method)
Sulfur dioxide	29 parts per million by volume (ppmv), or 25 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	24-hour daily block geometric average concentration or percent reduction
Hydrogen chloride	29 ppmv, or 5 percent of the potential hydrogen chloride emission concentration, corrected to 7 percent oxygen (dry basis)	3-run average (minimum run duration is 1 hour)
Dioxins/furans	35 nanograms/dscm (total mass), corrected to 7 percent oxygen, where an electrostatic precipitator-based emission control system is employed; or 30 nanograms/dscm (total mass) corrected to 7 percent oxygen, where an electrostatic precipitator-based emission control system is not employed	3-run average (minimum run duration is 4 hours)

(d) The fugitive ash emissions requirements applicable to each large MWC unit shall be as specified in 40 CFR §60.55b.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3303.02 Emissions Limits for Small MWC Units.

(a) The emission limits for carbon monoxide for small MWC units shall be as specified in Table 5 of subpart BBBB in 40 CFR 60.

(b) The emissions limits for small MWC units shall be as specified in Table 3303-3 for the air pollutants or parameters listed:

Table 3303-3 Emissions Limits for All Small MWC Units

Pollutant or Parameter	**Emission Limit**	**Averaging Time**
Particulate matter	27 milligrams (mg)/dry standard cubic meter (dscm), corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Opacity	10 percent (6-minute average)	30 6-minute averages
Cadmium	0.040 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Lead	0.44 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Mercury	0.028 mg/dscm, corrected to 7 percent oxygen**,** or 85 % control efficiency	3-run average (run duration specified in test method)
Sulfur dioxide - daily limit	77 parts per million by volume (ppmv), or 50 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	24-hour daily block geometric average concentration or percent reduction
Sulfur dioxide - monthly limit	29 parts ppmv, or 25 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	Monthly block geometric average concentration or percent reduction
Hydrogen chloride	29 ppmv, or 5 percent of the potential hydrogen chloride emission concentration, corrected to 7 percent oxygen (dry basis)	3-run average (minimum run duration is 1 hour)
Dioxins/furans	60 nanograms/dscm (total mass), corrected to 7 percent oxygen (dry basis), where an electrostatic precipitator-based emission control system is employed; or 30 nanograms/dscm (total mass), corrected to 7 percent oxygen (dry basis), where an electrostatic precipitator-based emission control system is not employed	3-run average (minimum run duration is 4 hours)
Fugitive ash	Visible emissions for no more than 5 percent of hourly observation period	3 1-hour observation periods

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3304 OPERATING PRACTICES

Env-A 3304.01 Operating Practices for Large MWC Units. The operating practices applicable to each large MWC unit shall be as specified in 40 CFR §60.53b(b) and (c).

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3304.02 Operating Practices for Small MWC Units. The operating practices applicable to each small MWC unit shall be as specified in 40 CFR §§60.1690 and 60.1695.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3304.03 Operating Practices for All MWC Units. The owner or operator of a MWC unit subject to this chapter shall comply with the facility staffing requirements specified in Env-Sw 1005.07.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3305 TRAINING AND CERTIFICATION

Env-A 3305.01 General Operator Training and Certification For Large and Small MWC Units.

(a) In accordance with RSA 149-M:6, XIII and 40 CFR §60.54b for large MWC units, and 40 CFR §60.1645 and §60.1675 for small MWC units, operator training and certification for large and small MWC units shall be obtained through the state program specified in Env-Sw 1600, Operator Training and Certification.

(b) The following employees of a large or small MWC unit shall complete the operator certification requirements specified in (a), above:

(1) Chief facility operators;

(2) Shift supervisors; and

(3) Control room operators.

(c) An employee specified in (b), above, shall obtain operator certification as specified in (a), above, no later than:

(1) For new facilities, 6 months after the MWC unit at which the employee will work starts up; or

(2) For existing facilities, 6 months after the employee transfers to or is hired to work at the MWC unit.

(d) To maintain certification, the trained and certified MWC operator shall complete an annual review or refresher course that meets the requirements specified in Env-Sw 1606.

(e) If all certified operators must be temporarily offsite, the MWC unit owner or operator shall comply with the requirements of 40 CFR §60.54b(c) for a large MWC unit or 40 CFR §60.1685 for a small MWC unit.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3305.02 Plant-Specific Operator Training.

(a) The following employees of a large or small MWC unit shall complete a plant-specific operator training course:

(1) Chief facility operators;

(2) Shift supervisors;

(3) Control room operators;

(4) Ash handlers;

(5) Maintenance personnel; and

(6) Crane or load handlers.

(b) The owner or operator of a large or small MWC unit shall provide plant-specific training to the employees identified in (a), above, in accordance with the following requirements:

(1) For a large MWC, 40 CFR §60.54b(e), (f), and (g); and

(2) For a small MWC, the following:

a. 40 CFR §60.1660;

b. 40 CFR §60.1665; and

c. 40 CFR §60.1670.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3306 MONITORING AND TESTING

Env-A 3306.01 Compliance and Performance Testing for Large MWC Units.

(a) The compliance and performance testing requirements applicable to each large MWC unit shall be as specified in 40 CFR §60.58b, except as provided by 40 CFR §60.24(b)(2) and as amended in (b) and (c), below.

(b) The alternative performance testing schedule for dioxins/furans specified in 40 CFR §60.58b(g)(5)(iii) shall apply to large MWC plants where all performance tests for affected facilities over a 2-year period achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter, corrected to 7 percent oxygen.

(c) If continuous emission monitors are used, they shall be installed, operated, and maintained in accordance with Env-A 808.

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3306.02 Compliance and Performance Testing for Small MWC Units.

(a) Initial and annual stack testing shall be conducted at small MWC units to determine compliance with the emissions limits specified in Env-A 3303.02 for the following pollutants and parameters:

(1) Particulate matter;

(2) Opacity;

(3) Cadmium;

(4) Lead;

(5) Mercury;

(6) Hydrogen chloride;

(7) Dioxins/furans; and

(8) Fugitive ash.

(b) Stack testing at small MWC units shall be conducted in accordance with the requirements in 40 CFR §§60.1785, 60.1790, 60.1795, and 60.1800.

(c) Continuous emission monitoring shall be conducted at small MWC units in accordance with the following requirements, except as amended in (f), below:

(1) 40 CFR §60.1715;

(2) 40 CFR §60.1720;

(3) 40 CFR §60.1730;

(4) 40 CFR §60.1735;

(5) 40 CFR §60.1740;

(6) 40 CFR §60.1745;

(7) 40 CFR §60.1750;

(8) 40 CFR §60.1755;

(9) 40 CFR §60.1760;

(10) 40 CFR §60.1765; and

(11) 40 CFR §60.1770.

(d) Continuous emission monitoring data gathered at small MWC units shall be used to determine compliance with emissions limits as specified in Env-A 3303.02 for the following pollutants:

(1) Sulfur dioxide; and

(2) Carbon monoxide.

(e) Emission limits shall apply to small MWC units at all times except during periods of MWC unit startup, shutdown, or malfunction, as specified in 40 CFR §60.1710.

(f) If continuous emission monitors are used, they shall be installed, operated, and maintained in accordance with Env-A 808.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3306.03 Additional Monitoring Requirements. The owner or operator of a small MWC unit shall comply with the following monitoring requirements:

(a) 40 CFR § 60.1805;

(b) 40 CFR § 60.1810;

(c) 40 CFR § 60.1815;

(d) 40 CFR § 60.1820; and

(e) 40 CFR § 60.1825.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

PART Env-A 3307 REPORTING AND RECORDKEEPING

Env-A 3307.01 Reporting and Recordkeeping Requirements for Large MWC Units. The reporting and recordkeeping requirements applicable to each large MWC unit shall be the same as specified in 40 CFR §60.59b, excluding the siting requirements under 40 CFR §60.59b(a), (b)(5) and (d)(11).

Source. #6518-B, eff 5-29-97; ss by #7704, eff 6-7-02; ss by #9084, eff 2-2-08

Env-A 3307.02 Recordkeeping and Reporting Requirements for Small MWC Units.

(a) Small MWC units shall comply with the recordkeeping requirements specified in the following:

(1) 40 CFR §60.1830;

(2) 40 CFR §60.1835;

(3) 40 CFR §60.1840;

(4) 40 CFR §60.1845;

(5) 40 CFR §60.1850; and

(6) 40 CFR §60.1855.

(b) Small MWC units shall comply with the reporting requirements specified in the following:

(1) 40 CFR §60.1860;

(2) 40 CFR §60.1865;

(3) 40 CFR §60.1870;

(4) 40 CFR §60.1875;

(5) 40 CFR §60.1880;

(6) 40 CFR §60.1885;

(7) 40 CFR §60.1890;

(8) 40 CFR §60.1895;

(9) 40 CFR §60.1900; and

(10) 40 CFR §60.1905.

Source. #7704, eff 6-7-02; ss by #9084, eff 2-2-08

APPENDIX

Rule	Specific Section of State or Federal Statute or Regulation which the Rule Implements
Env-A 3300	RSA 125-C:4
Env-A 3301	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b)
Env-A 3302	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.51b and 60.1940
Env-A 3303.01(a)	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.34b
Env-A 3303.01(b)	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.33b
Env-A 3303.01(c)	RSA 125-C:4, I(a); RSA 125-M:3; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.33b
Env-A 3303.01(d)	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.55b
Env-A 3303.02(a)	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR 60, Table 5 of subpart BBBB
Env-A 3303.02(b)	RSA 125-C:4, I(a); RSA 125-M:3; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR 60, Table 4 of subpart BBBB
Env-A 3304.01	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR § 60.53b(b) and (c)
Env-A 3304.02	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR § 60.1690 and 1695
Env-A 3304.03	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.1680
Env-A 3305.01	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1645, 60.1650, 60.35b, and 60.54b
Env-A 3305.02	RSA 125-C:4, I(a); 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1655, 60.1660, 60.1665, 60.1670, 60.35b, and 60.54b(e), (f) & (g)
Env-A 3306.01	RSA 125-C:6,XI.; 42 U.S.C. §§ 7411(d) and 7429(b); 40 CFR §§60.24(b)(2), 60.38b and 60.58b
Env-A 3306.02(a)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.24(b)(2), 60.38b and 60.58b
Env-A 3306.02(b)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1775 and 60.1780
Env-A 3306.02(c)	RSA 125-C:6, XI; 42 U.S.C. §§ 7411(d) and 7429(b); 40 CFR §§ 60.1785, 60.1790, 60.1795, and 60.1800
Env-A 3306.02(d)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.1725
Env-A 3306.02(e)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §60.1710
Env-A 3306.03	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1805, 60.1810, 60.1815, 60.1820, and 60.1825
Env-A 3307.01	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.39b and 60.59b
Env-A 3307.02(a)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1830, 60.1835, 60.1840, 60.1845, 60.1850, and 60.1855
Env-A 3307.02(b)	RSA 125-C:6, XI; 42 U.S.C. §§7411(d) and 7429(b); 40 CFR §§60.1860, 60.1865, 60.1870, 60.1875, 60.1880, 60.1885, 60.1890, 60.1895, 60.1900, and 60.1905